Ruoqing Zhu

CONTACT INFORMATION	*Address:* Department of Biostatistics 3105 McGavran-Greenberg Hall, CB#7420 Chapel Hill, NC 27599-7420, U.S.A.	*Phone:* 1-419-378-0372 *E-mail:* rzhu@bios.unc.edu http://www.bios.unc.edu/~rzhu

EDUCATION

Ph.D., Biostatistics, August 2008 - June 2013 (Expected)
The University of North Carolina at Chapel Hill, Chapel Hill, NC
Advisor: Michael R. Kosorok, Professor and Chair

M.A., Statistics, August 2006 - June 2008
Bowling Green State University, Bowling Green, OH

B.S., Mathematics, September 2002 - June 2006
Nanjing University, Nanjing, China

B.S., Financial Engineering, September 2003 - June 2005
Nanjing University, Nanjing, China

RESEARCH INTERESTS

Machine Learning; High-dimensional data; Tree-based Methods; Reinforcement Learning; Survival Analysis; Empirical Processes; Mental Disorder.

RESEARCH EXPERIENCE

Graduate Research Assistant   August 2010 - Present
Statistical Methods for Cancer Clinical Trials, NCI P01 CA142538, UNC-CH
Supervisor: Michael R. Kosorok.
- Tree-based methods for high-dimensional data, variable selection, and survival data

Graduate Research Assistant   August 2009 - Present
North Carolina Translational and Clinical Sciences (NC TraCS), UNC-CH
Supervisor: Michael R. Kosorok.
- State psychiatric hospital patients classification
- Discrete event simulation study for innovations in psychiatric hospital policy

Graduate Research Assistant   August 2008 - August 2009
Department of Biostatistics, UNC-CH
Supervisor: Haibo Zhou
- Environmental medicine, asthma, and lung biology related projects

Intern in Statistics   Summer 2011
Center for Statistics in Drug Development, Innovation at Quintiles
Supervisor: Zoran Antonijevic

- Value-driven optimization for drug development

Graduate Research Assistant   Fall 2007
Statistical Consulting Center at Bowling Green State University
- Statistical consulting for a variety of research projects

Instructor
- BGSU, Math112   August 2006 - May 2007
  – College Algebra (Two classes per semester; Class size: 25 students)

Teaching Assistant
- UNC-CH, BIOS 760   Fall 2010
  – Advanced Probability and Statistical Inference I
- UNC-CH, BIOS 600 (also gave lectures occasionally)   Fall 2010
  – Principles of Statistical Inference
- UNC-CH, BIOS 761:   Spring 2010
  – Advanced Probability and Statistical Inference II

Tutor
- BGSU, Student tutoring center   Spring 2008

PUBLICATIONS

Zhu, R., and Kosorok, M. R. (2012), "Recursively Imputed Survival Trees."
Journal of the American Statistical Association Vol. 107, pp. 331-340.
[⋆ **Highlighted in the Amstat News magazine of March 2012 JASA.**

http://magazine.amstat.org/blog/2012/04/01/march-jasa/ ⋆]

SUBMITTED
PAPERS

Zhu, R., Zeng, D., and Kosorok, M. R., "Reinforcement Learning Trees." submitted to *The Annals of Statistics*.

Holdsworth La, E., **Zhu, R.**, Hassmiller Lich, K., Ellis, A. R., Swartz, M., Kosorok, M. R., Morrissey, J. P., "The impact of a state psychiatric hospital waitlist policy on length of stay and time to readmission." submitted to *Psychiatric Services*

WORKING
PAPERS

Holdsworth La, E., Hassmiller Lich, K., Wells R, Ellis, A. R., **Zhu, R.**, Swartz, M., Kosorok, M. R., Morrissey, J., "Reducing delays in state psychiatric hospital admissions: Demand-side solutions."
    Target journal: *Psychiatric Services*
    Phase: draft 75% complete

Holdsworth La, E., Hassmiller Lich, K., Wells R, Ellis, A. R., Swartz, M., **Zhu, R.**, Morrissey, J., "Reducing delays in state psychiatric hospital admissions: Supply-side solutions."
  Target journal: *Value in Health*
  Phase: draft 75% complete

TALKS &
PRESENTATIONS   Invited talk, "Patient taxonomy for state psychiatric hospital use", North Carolina Translational and Clinical Sciences Institute, UNC-CH, Chapel Hill, NC (August 2012).

Invited talk, "An introduction to tree-based methods and their applications on survival analysis", Quintiles, Durham, NC (March 2011).

Contributed talk, "Recursively Imputed Survival Trees", ENAR, Miami, FL (March 2011).

Contributed poster presentation, "Recursively Imputed Survival Trees", JSM, Miami, FL (August 2011).

REFEREE
SERVICE   Journal of the Royal Statistical Society, Series B

PROFESSIONAL
ACTIVITIES   Second IMPACT Symposium – "Clinical Trials in the Era of Personalized Medicine", Durham, NC (November 2012).

First IMPACT Symposium – "Paradigms in Clinical Trial Methodology", Durham, NC (November 2011).

ENAR Meetings, Miami, FL (March 2011).

Joint Statistical Meetings, Miami, FL (August 2011).

PROFESSIONAL
MEMBERSHIPS   International Biometric Society
American Statistical Association
International Chinese Statistical Association

COMPUTATIONAL
SKILLS   Software: proficient in R, SAS, MATLAB
Programming Languages: C, C++